

SECRET

NPIC/P&DS-6-097
29 September 1966

MEMORANDUM FOR: Director, National Photographic Interpretation Center

ATTENTION : Chief, Logistics Branch

THROUGH : Chief, Support Staff

SUBJECT : Request for Approval of Change in Scope on GEMS
Development Project with [] amounting to []

REFERENCE : Chief, Administrative Staff, O/DDI Memorandum of
4 February 1964: Approval of Research and Development
Activities.

1. In 1965, NPIC contracted with [] for Graded Estimate
Measuring Samples (GEMS) Development for [] The objective of the
project is to determine how well the image quality of mission photography
can be assessed by comparing it with GEMS. One large, integral part of
the work is to print in the laboratory 1024 GEMS to be used as the basic
GEMS matrix to selectively compare against mission photography on a GEMS
comparator. Production of this large GEMS matrix has not been initiated
but is scheduled to begin very soon; the matrix above will cost about
[] A GEMS comparator designed to use this many GEMS has been
estimated to cost [] whenever it would be developed.

2. [] has suggested a technique which, if feasible, would
eliminate the need for such a large GEMS matrix, not only in the proto-
type system to be developed under this contract, but in subsequent
operational systems. The proposed technique would require only a few
GEMS (perhaps as few as 6-10). This technique suggests that the operator
himself could make "optical" GEMS in real-time for comparison against his
mission material rather than him having to make a selection from the 1024
GEM matrix as designed in the system now under development.

3. This alternate GEMS technique appears to be technically sound,
but it has not been investigated experimentally in the laboratory. There-
fore, [] has proposed a ten-week laboratory feasibility study

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SUBJECT: Request for Approval of Change in Scope on GEMS Development
Project with [REDACTED]

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of this potential technique for [REDACTED] It is not desirable to use any of the funds allotted against the current research because if the proposed alternate technique proves to be not feasible, we would want to continue the large matrix as originally planned.

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4. It is recommended that the change in scope be funded from FY-1967 R&D funds on a priority basis because the proposed technique should be carried out before the production of a large GEMS matrix.

[REDACTED]
Colonel, USAF
Assistant for Plans and Development, NFIC

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APPROVED: _____
Executive Director, NFIC

Date

Attachment:
Catalog Form

[REDACTED]

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